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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/998,141	12/03/2001	Neil Andrew Stephenson	20944	4598

27182 7590 04/28/2003

PRAXAIR, INC.  
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EXAMINER
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SPITZER, ROBERT H

ART UNIT	PAPER NUMBER
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1724

DATE MAILED: 04/28/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	09/998,141	STEPHENSON, NEIL ANDREW
	<b>Examiner</b>	<b>Art Unit</b>
	Robert H. Spitzer	1724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on \_\_\_\_\_.
  - 2a) This action is FINAL.      2b) This action is non-final.
  - 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.
- Disposition of Claims**
- 4) Claim(s) 1-21 is/are pending in the application.
  - 4a) Of the above claim(s) 1-12 is/are withdrawn from consideration.
  - 5) Claim(s) \_\_\_\_\_ is/are allowed.
  - 6) Claim(s) 13-21 is/are rejected.
  - 7) Claim(s) \_\_\_\_\_ is/are objected to.
  - 8) Claim(s) 1-21 are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 03 December 2001 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
  - a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_.

Art Unit: 1724

### **DETAILED ACTION**

1. The Art Unit location of your application in the USPTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Art Unit 1724.
2. Restriction to one of the following inventions is required under USC 121:
  - I. Claims 1-12, drawn to a zeolite composition, classified in class 502, subclass 64.
  - II. Claims 13-21, drawn to a process for selectively adsorbing nitrogen, classified in class 95, subclass 130.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP 806.05(h)). In the instant case, the product as claimed can be used in a materially different process of use, such as a catalyst in a hydrocarbon conversion process.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classifications, restriction for examination purposes as indicated above is deemed proper.

During a telephone conversation with Mr. Robert Follet on March 28, 2003, a provisional election was made, without traverse, to prosecute the invention of Group II, claims 13-21. Affirmation of this election must be made by Applicants in replying to this

Office action. Claims 1-12 are thus withdrawn from further consideration by the Examiner, 37 CFR 1.142(b), as being drawn to the non-elected invention.

Applicants are reminded that upon cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of the inventorship must be accompanied by a request under 37 CFR 1.48(b) and the fee required under 37 CFR 1.17(i).

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 17 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claim is indefinite because it recites "wherein the divalent atom is cobalt", while claim 16, from which claim 17 depends, recites "wherein the divalent atom is zinc", and as "cobalt" is not "zinc", claim 17 cannot further amend or modify the "zinc" of claim 16. It appears that claim 17 should depend from a claim other than claim 16.

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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6. Claims 13-16 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by the process of MacDougall et al. (5,997,841). See specifically examples 5B,6B,7B and 10.

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over MacDougall et al. (5,997,841) in view of Coe et al. (5,258,058). The claim differs from the process of MacDougall et al. ('841) in the cation within the zeolite framework being cobalt in place of zinc. Coe et al. ('058) show that the cation can include both cobalt and zinc for placement within a zeolite. It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to substitute cobalt for the zinc within the zeolite framework of the zeolite used in the process of MacDougall et al. ('841), in view of the showing by Coe et al. ('058) that cobalt and zinc are from the same group of cations and can be used within the zeolite structure.

9. Claims 18-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over MacDougall et al. (5,997,841) in view of Li et al. (5,584,912). The claims differ from the process of MacDougall et al. ('841) in the zeolite being of the EMT or FAU/EMT type. Li et al. ('912) show that EMT and FAU/EMT type of zeolites can be modified to include a cation such as zinc and used in a process for the separation of nitrogen from a feed gas mixture of air. It would have been obvious to one of ordinary skill in the art, at the time

the invention was made, to utilize a zeolite of the EMT or FAU/EMT structure in place of the FAU type zeolite used in the process of MacDougall et al. ('841), in view of the showing of Li et al. ('912), as the FAU structure and the FAU/EMT structure of zeolites would be useable in place of each other, as they are both structure types which would have the required pore opening size for the adsorption of nitrogen from the feed air mixture.

10. The remaining references listed on both the PTO-1449 and the PTO-892 show art of interest.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert H. Spitzer whose telephone number is (703) 308-3794. The examiner can normally be reached on Monday-Thursday from 5:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Simmons, can be reached on (703) 308-1972. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9310 and for After Final communications the fax number is (703) 872-9311.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Robert H. Spitzer  
April 23, 2003

*Robert H. Spitzer*  
Robert H. Spitzer  
Primary Examiner  
Art Unit 1724  
Apr 1 23, 2003